VIII. SUPPLEMENTAL CLAIMS APPENDIX

This Supplemental Claims Appendix is being submitted to correct the April 27, 2006

Appeal Brief Claims Appendix by presenting the amendments to the claims, relative to the patent, in proper underline form. The remainder of this Supplemental Claims Appendix is the same as that in the previously filed Appeal Brief. The pagination also remains the same.

Because claims 12-14 and 32-35 were canceled in an amendment filed on even date herewith which has not yet been entered, the claims are listed as still pending below.

Claims 1-6 (Canceled).

Claim 7 (Amended - Allowed): A [compound according to claim 4,] diazodisulfone compound of the formula:

$$\begin{array}{c}
R^1SO_2CSO_2R^2 \\
\downarrow \downarrow \\
N_2
\end{array}$$

wherein R^1 is a branched alkyl group having 3 to 8 carbon atoms; and R^2 is a cyclic alkyl group having 3 to 8 carbon atoms.

Claim 8 (New): A diazodisulfone compound of the formula:

$$\begin{array}{c}
R^1SO_2CSO_2R^2\\ \downarrow \\
N_2
\end{array}$$

wherein R¹ is a cyclic alkyl group in which the alkyl group is hexyl; and R² is a cyclic alkyl group in which the alkyl group is hexyl.

Claim 9 (New): A diazodisulfone compound of the formula:

$$\begin{array}{c}
R^1SO_2CSO_2R^2\\
\downarrow \\
N_2
\end{array}$$

wherein R^1 is a branched alkyl group in which the alkyl group is butyl; and R^2 is a branched alkyl group in which the alkyl group is butyl.

Claim 10 (New): A diazodisulfone compound of the formula:

$$\begin{array}{c}
R^1SO_2CSO_2R^2\\
\downarrow \\
N_2
\end{array}$$

wherein R¹ is cyclohexyl; and R² is cyclohexyl.

Claim 11 (New): A diazodisulfone compound of the formula:

$$\begin{array}{c}
R^1SO_2CSO_2R^2\\
\downarrow \\
\underline{N_2}
\end{array}$$

wherein R^1 is a branched butyl; and R^2 is a branched butyl.

<u>Claim 12 (New): A reduced light exposure energy photosensitive resist compound of formula:</u>

$$\begin{array}{c}
R^{1}SO_{2}CSO_{2}R^{2} \\
\downarrow \\
N_{2}
\end{array}$$

R¹ and R² being independently branched or cyclic alkyl groups having 3 to 8 carbon atoms,

wherein the resist compound is used for a light source of 300 nm or less at a reduced light exposure energy amount to generate an acid to create a positive tone pattern on a surface having a polymer, which is difficultly soluble in an alkaline developing solution but which can become soluble by the action of an acid, and the resist compound is sufficient for the polymer on an exposed portion to become alkali-soluble by a chemical change with the acid generated from the resist compound by light exposure energy.

Claim 13 (New): The photosensitive resist compound of claim 12, wherein the light source is selected from the group consisting of deep UV light and KrF excimer laser light (248.4 nm).

Claim 14 (New): A reduced light exposure energy photosensitive resist compound of formula:

$$\begin{array}{c} R^1SO_2CSO_2R^2 \\ \parallel \\ N_2 \end{array}$$

R¹ and R² being independently branched or cyclic alkyl groups having 3 to 8 carbon atoms, wherein the photosensitive resist compound, when exposed to KrF eximer light, generates an acid by the following reaction scheme:

$$R^{1}SO_{2}CSO_{2}R^{2} \xrightarrow{h\nu} R^{1}SO_{2}CSO_{2}R^{2} \xrightarrow{2) H_{2}O}$$

$$R^{1}SO_{2}CSO_{2}R^{2} \xrightarrow{h\nu} R^{1}SO_{2}CSO_{2}R^{2} \xrightarrow{2) H_{2}O}$$

$$R^{1}SO_{2}CHSO_{3}H, \text{ or } R^{2}$$

$$HO_{3}SCHSO_{2}R^{2}$$

$$R^{1}$$

and the photosensitive resist compound is sufficient for a polymer, which is difficultly soluble in an alkaline developing solution but which can become soluble by the action of an acid, on an exposed portion of an exposed surface to become alkali-soluble by a chemical change with the acid generated from the photosensitive resist compound by light exposure energy.

Claims 15 - 31: Canceled

Claim 32 (New): The diazodisulfone compound of claim 7, wherein the compound is one used for a light source of 300 nm or less at a reduced light exposure energy amount to generate an acid to create a positive tone pattern on a surface.

Claim 33 (New): The diazodisulfone compound of claim 7, wherein when the compound is exposed to KrF eximer light it generates an acid by the following reaction scheme:

$$R^{1}SO_{2}CSO_{2}R^{2} \xrightarrow{h\nu \longrightarrow} R^{1}SO_{2}CSO_{2}R^{2} \xrightarrow{2) H_{2}O}$$

$$R^{1}SO_{2}CHSO_{2}H, \text{ or } R^{2}$$

$$HO_{3}SCHSO_{2}R^{2}$$

$$R^{1}SO_{2}CHSO_{2}R^{2}$$

Claim 34 (New): The diazodisulfone compound of claim 8, wherein the resist compound is used for a light source of 300 nm or less at a reduced light exposure energy amount to generate an acid to create a positive tone pattern on a surface having a polymer, which is difficultly soluble in an alkaline developing solution but which can become soluble by the action of an acid, and the resist compound is sufficient for the polymer on an exposed portion to become alkali-soluble by a chemical change with the acid generated from the resist compound by light exposure energy.

Claim 35 (New): The diazodisulfone compound of claim 9, wherein the resist compound is used for a light source of 300 nm or less at a reduced light exposure energy amount to generate an acid to create a positive tone pattern on a surface having a polymer, which is difficultly soluble in an alkaline developing solution but which can become soluble by the action of an acid, and the resist compound is sufficient for the polymer on an exposed portion to become alkali-soluble by a chemical change with the acid generated from the resist compound by light exposure energy.

If, for any reason, it is felt that the Brief on Appeal is not now in proper condition for appeal, the Examiner is requested to contact the Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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